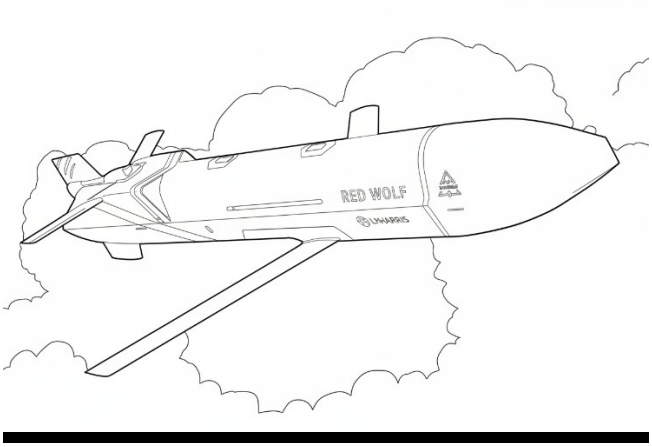
L3Harris Red Wolf



IDENTITY & DESIGNATION

Official Designation: Red Wolf™
Manufacturer: L3Harris Technologies, Ashburn, Virginia, USA
Country of Origin: United States
Year Introduced: Development since 2020; first publicly identified May 2025; PASM contract awarded January 30, 2026; fielding target 2027
Program Names: Long-Range Attack Missile (LRAM); Precision Attack Strike Munition (PASM) Program of Record; originally developed under Pentagon Strategic Capabilities Office (SCO); first demonstrated at Army EDGE 21 exercise
NATO/Allied Designation: N/A — U.S. military program designation under NAVAIR PMA-242 (Direct and Time Sensitive Strike Weapons)

CLASSIFICATION

Domain: Air
Category: Miniature Cruise Missile / Launched Effects Vehicle / Loitering Munition
Sub-Category: Long-range precision strike (kinetic). Part of the modular “Wolf” family alongside Green Wolf (EW variant)
Terminal Mode: Expendable (kinetic strike)
Expendable: Yes

PHYSICAL SPECIFICATIONS

Weight: ~250 lb class
Length: ~6 ft (per Aviation Week EDGE 21 reporting)
Configuration: Missile-like body with pop-out main wings and horizontal stabilizers. Two vertical fins. Prominent chine line wrapping around nose and extending along body sides. Shovel-shaped nose. Pair of blended rear intakes feeding turbojet. X-form tail on production units (earlier prototypes had plus-form tail)
Low Observability: Yes — chine lines, blended intakes, and nose shaping indicate designed-in stealth features
Warhead: Kinetic strike warhead (type/weight classified). Concept videos show precision strikes on warship sensor masts and superstructure
Launch Method: Air-launched from rotary-wing (AH-1Z Viper) and fixed-wing (OA-1K Skyraider II, MQ-1C Gray Eagle). Ground-launched via rocket-assisted launch. Maritime launch capability. Compatible with standard wing pylons
Airframe Material: Not disclosed; construction consistent with low-observable composite design

PROPULSION & PERFORMANCE

Propulsion Type: Small turbojet engine (reported as German-made)
Max Speed: High subsonic
Range: 200+ nautical miles (370+ km) at low altitude — proven in flight testing
Endurance: 60+ minutes
Altitude: Low-altitude capable; demonstrated in low-altitude test firing from AH-1Z (late 2025)
Range Comparison: Far exceeds single-digit nautical mile range of AGM-114 Hellfire (~5 nmi) and AGM-179 JAGM (~10 nmi). Approaches standoff range of much larger/costlier cruise missiles

GUIDANCE, NAVIGATION & CONTROL

Control Link: Beyond line-of-sight (BLOS) communication
Engagement Mode: Autonomous over-the-horizon engagements
Targeting: Tablet-based control system used in USMC testing. In-flight retargeting capability
Autonomy Level: Advanced — supports swarming capability of autonomous aircraft; in-flight collaboration between Wolf family members; autonomous target tracking
Collaboration: Red Wolf and Green Wolf designed to work together: Green Wolves locate targets (especially air defense emitters via ESM), clear EW path, then Red Wolves strike. “Wolf pack” cooperative engagement concept
Man-in-Loop Required: No — capable of autonomous OTH engagement; man-on-the-loop via tablet control
Fiber-Optic Option: No

SENSORS & PAYLOADS

Primary Payload: Kinetic strike warhead for precision land and maritime targets
Secondary Capabilities: Surveillance, target tracking, communications relay (demonstrated at EDGE 21)
Modularity: Core airframe shared with Green Wolf; payloads swappable between kinetic strike, EW, decoy, ISR, and comms relay configurations

COST & PROCUREMENT

Target Unit Cost: ~$300,000 at full-rate production (~1,000/year)
PASM Contract: $86.2 million Other Transaction Agreement (OTA) awarded Jan 30, 2026 to L3Harris via NAVAIR PMA-242 for development, test, and manufacture for USMC AH-1Z
Production Status: Production line already active and scalable. 52 test flights completed as of Jan 2026
Cost Comparison: Red Wolf at ~$300K vs. JAGM at ~$300K (but 10 nmi range) vs. JASSM-ER at ~$1.5M (much larger, longer range) vs. Hellfire at ~$150K (5 nmi range). Red Wolf provides 20–40x the range of Hellfire/JAGM at comparable or 2x cost

PLATFORM INTEGRATION

Primary Platform: USMC AH-1Z Viper attack helicopter — carried on stub wing pylons (2 missiles visible in test photos)
Fixed-Wing: OA-1K Skyraider II (Sky Warden) — integration demonstrated Feb 2026; up to 6,000 lbs payload capacity on 8 pylons. Also tested from MQ-1C Gray Eagle UAS
Ground-Based: Rocket-assisted ground launch capability demonstrated
Maritime: Sea-based launch capability (details limited)
Integration Approach: Open standards-based; designed for rapid integration across platform types. L3Harris emphasizes “modularity and ease of integration for evolving mission requirements”

COUNTERMEASURE VULNERABILITY PROFILE

RF Jamming: LOW — Autonomous OTH engagement capability reduces dependence on continuous data link. BLOS comms provide redundancy
GPS Spoofing: MODERATE — Likely GPS/INS guided but autonomous target tracking capability suggests alternative terminal guidance modes
EMI/EMC Attack: LOW–MODERATE — Military-grade electronics; small turbojet less susceptible than electric motor/ESC systems to EMI-induced shutdown
Microwave Attack: LOW–MODERATE — Military hardening likely; high speed and low altitude reduce exposure time to ground-based HPM
Laser DEW: MODERATE — High subsonic speed at low altitude limits dwell time; small cross-section. But sustained flight path during cruise phase provides tracking window
Kinetic Intercept: MODERATE — Low-observable design, low altitude, and high subsonic speed make engagement difficult for legacy air defense. Modern SHORAD/point defense systems pose greater threat
Net / Physical Capture: N/A — High-speed cruise missile; net systems irrelevant
Cyber / Hack: LOW — Military-encrypted BLOS links; autonomous engagement reduces cyber attack surface
Active Camouflage Defeat: N/A
Overall Vulnerability Rating: LOW–MODERATE (designed as survivable standoff weapon)

CRUISE MISSILE CONVERGENCE NOTES

The Red Wolf is not converging toward being a cruise missile — it IS a cruise missile, just one built with the production philosophy and cost discipline of the drone world. Turbojet propulsion, stealthy airframe, autonomous guidance, 200+ nmi range, precision terminal attack — these are the defining characteristics of a cruise missile. What makes Red Wolf significant for this volume is that it achieves this at $300,000 and a 250 lb weight class, in a form factor that hangs on an attack helicopter's pylon.

The convergence story here runs in reverse from most entries in this book. Where the Shahed-136 shows a crude airframe gradually acquiring cruise missile DNA, and modified DJIs show consumer tech being weaponized from below, Red Wolf shows the cruise missile itself being miniaturized and commoditized from above. L3Harris is explicitly targeting production rates of 1,000/year — mass production numbers that would have been unthinkable for traditional cruise missiles.

The "Wolf pack" cooperative engagement concept — Green Wolves finding and jamming air defenses while Red Wolves strike — mirrors the SEAD/DEAD mission packages traditionally requiring full-size aircraft and million-dollar missiles. Shrinking that entire kill chain into a swarm of 250 lb expendable munitions launched from a turboprop crop duster (OA-1K) represents a fundamental shift in how standoff strike capability is delivered.

The maritime strike concept is particularly relevant: Red Wolves targeting sensor masts to blind warships, followed by LRASM cruise missiles for the kill. This is cooperative multi-domain engagement using expendable cruise missiles as the leading edge — exactly the kind of asymmetric capability this book argues is reshaping modern warfare.

Compare Red Wolf's position in the convergence spectrum: at $300K it sits between the Coyote Block 2 ($100K counter-drone interceptor) and JASSM-ER ($1.5M traditional cruise missile). It occupies the emerging middle ground where "drone" and "cruise missile" become meaningless distinctions. L3Harris itself calls them "launched effects vehicles" — a deliberate hedge that acknowledges the categories have collapsed.

OPERATIONAL HISTORY

Originally developed secretly for the Pentagon's Strategic Capabilities Office (SCO). First demonstrated at the U.S. Army's EDGE 21

(Experimentation Demonstration Gateway Event) in 2021, launched from an MQ-1C Gray Eagle and functioning as a communications relay. Development continued under Defense Innovation Acceleration (DIA) program funding, designed to move TRL 5–7 technologies to warfighters within 24–36 months. Over 40 test flights completed by July 2025; 52 total by January 2026. Platforms tested include crewed and uncrewed fixed-wing, rotorcraft, and ground-based launchers. November 2024: Mystery missile test-fired from AH-1Z Viper at Yuma Proving Ground as part of USMC Long-Range Precision Fire (LRPF) test. May 2025: USMC publicly identified the mystery missile as L3Harris Red Wolf. July 2025: L3Harris formally unveiled the Red Wolf and Green Wolf family. Late 2025: Low-altitude live-fire test from AH-1Z off coast of Virginia by Navy Air Test and Evaluation Squadron (HX) 21. January 30, 2026: $86.2M PASM contract awarded by NAVAIR. February 9, 2026: L3Harris demonstrated integration on OA-1K Skyraider II. Fielding target: 2027 for USMC AH-1Z fleet.

SOURCES & CROSS-REFERENCES

Manufacturer:
https://www.l3harris.com/newsroom/press-release/2026/01/us-navy-selects-l3harris-red-wolf-precision-attack-strike-munition

Image (AH-1Z launch): USMC courtesy photo via NAVAIR/L3Harris press release (Jan 2026) — check usage rights

Image (OA-1K integration): L3Harris press image (Feb 2026) — check usage rights

Key References: The War Zone: “Wolf Pack of Modular Mini Cruise Missiles Unveiled” (Jul 2025); The Aviationist: multiple articles (May 2025–Feb 2026); Defense News: “US Marine attack helicopters to field long-range missiles by 2027” (Feb 2026); Calibre Defence (Feb 2026)

Cross-Ref: Green Wolf (A-024, EW variant); Switchblade 600 (A-021, smaller loitering munition); Shahed-136 (A-016, low-cost comparison); Coyote (A-022, smaller launched effect); Anduril Barracuda-100M (competing system); JASSM-ER (traditional cruise missile benchmark)